



EIGHTH COAST GUARD DISTRICT INFORMATION BULLETIN

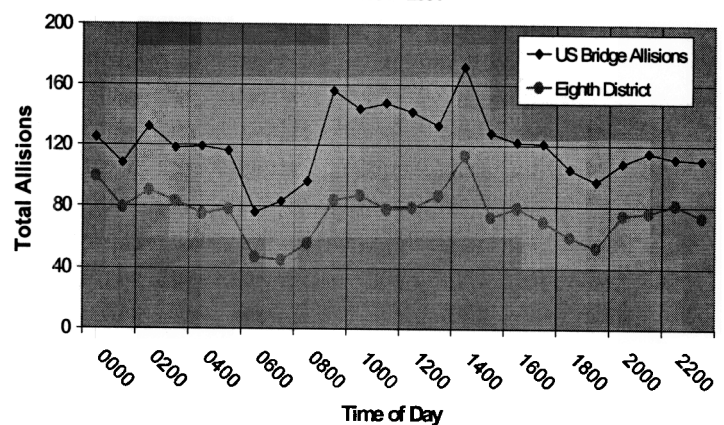
BRIDGE ALLISION ANALYSIS FOR 1991 THROUGH 2001

The Eighth Coast Guard District Marine Safety Division recently analyzed bridge allision data extracted from the Coast Guard's casualty database at Headquarters for a period of ten years including 1991 through 2001. The purpose of this bulletin is to share information with our industry counterparts to help reduce and/or prevent future bridge allisions. Since the data is taken from a broad spectrum of waterborne operations, we chose not to draw specific conclusions or make specific safety recommendations to the maritime industry. Rather, we want to provide you with the necessary tools to draw your own conclusions based on your particular operations. Accordingly, we have categorized certain elements related to bridge allisions, based on historical data, in order to heighten your awareness of associated risk factors.

Time of Day

A review of the data shows a sharp increase in bridge allisions between 1300 and 1500. Likewise, there is a significant decrease between 0600 and 0800. Although there is no single causal factor which appears to explain why these accidents are more likely to occur (or not occur) during these particular hours, you may wish to consider a variety of factors including the human circadian cycle, watch rotations, operating schedules, human complacency, etc., that might effect crew attentiveness.

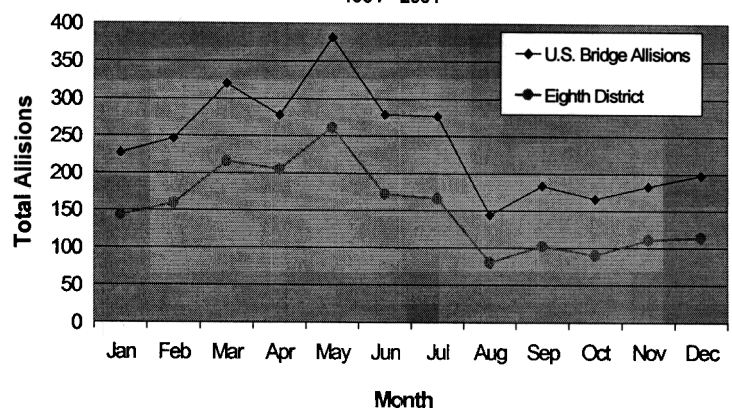
**Bridge Allisions by Time of Day
1991 - 2001**



Time of Year

The data indicates that the greatest number of bridge allisions occurred between March and May each year. Typically, these months represent the high water season for most river systems due to heavy rain and melting snow. Also note the sharp decrease beginning in the month of July, which corresponds with the typical return to normal water levels.

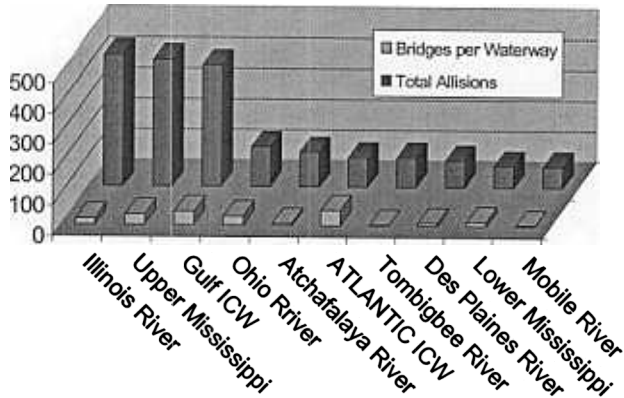
**Bridge Allisions by Month
1991 - 2001**



Waterways

The Illinois River, Upper Mississippi River, and Gulf Intracoastal Waterway (GICW) clearly represent the waterways with the greatest number of bridge allisions. However, if you consider the number of bridges that span each waterway, the Tombigbee and Mobile Rivers average a higher number of allisions per bridge.

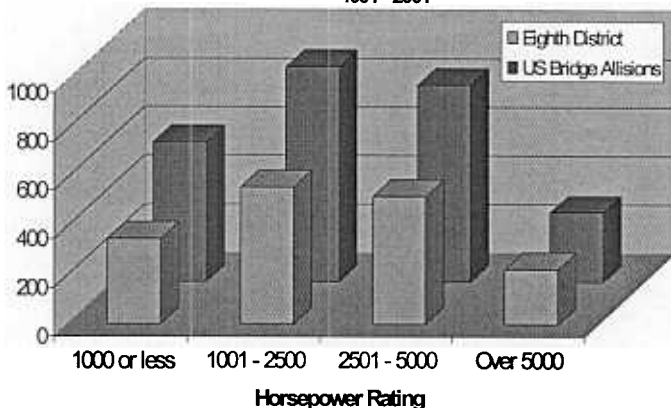
Waterways with the Most Bridge Allisions
1991 - 2001



Horsepower

Given the vast range of vessel horsepower ratings, we chose to analyze the casualty data by dividing it into four general horsepower classes. This analysis revealed that vessels rated at 2,500 horsepower or less account for approximately 56 percent of the nation's bridge allisions. On the other hand, vessels rated over 5,000 horsepower account for only 12 percent of the overall bridge allisions. 491 bridge allision cases were omitted from this analysis due to no recorded horsepower.

Bridge Allisions by Horsepower
1991 - 2001



Top 10 Bridge Lists

These 10 bridges hold the distinction of being hit the most. It is noted that the top 10 bridges are not grouped entirely in one specific geographic area of the country. In fact, they are spread out across the country on 5 different waterways. Accordingly, Mariners may wish to consider implementing additional safety measures when transiting these areas or at least heighten their awareness.

Top 10 Bridges (1991 - 2001)

Bridge Name	Total Allisions
E J & E Railway Bridge (MM 270.6 Illinois River)	171
Burlington RR Bridge (MM 403 Upper Mississippi)	96
Chicago & Northwestern RR Bridge (MM 151.2 Illinois River)	96
Galveston Causeway (I-45) Bridge (MM 357 GICW)	78
Naheola (Hwy 114) Bridge (MM 173 Tombigbee River)	69
Franklin Street Bridge (MM 162 Illinois River)	67
Bayou Dularge Bridge (MM 60 GICW)	63
Southern Pacific RR Bridge (MM 118 Atchafalaya River)	55
Sabula RR Bridge (MM 535 Upper Mississippi)	49
South Quay (Hwy 198) Bridge (MM 9.2 Blackwater River)	47

Conclusions

On average, a bridge allision occurs within the Eighth District every two days. Increased knowledge and vigilance are the keys to preventing property damage and loss of life resulting from bridge allisions. We urge company management, safety officers and vessel operators to review and disseminate this information throughout their fleets. We also recommend that companies plan their employee safety training to coincide with the peak periods identified in our time of year graph. Together we can manage today's risks to prevent tomorrow's casualties.